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Cultivating Well-Being and Creativity: How Biophilic Work Culture and Leadership Drive Innovative Work Behavior

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ABSTRACT: This conceptual paper introduces the innovative framework that shows how biophilic organizational inputs are mediated by a restorative Employee Experience to produce Innovative Work Behavior (IWB). In this ever more digitalized and pressurized business world, cognitive fatigue and creativity blockages are at an all-time high. This study aims to tackle this issue by combining three major theories: the Job Demands-Resources (JD-R) model, the Attention Restoration Theory (ART), and the Biophilia Hypothesis. It is to be noted that we distinguish between the two types of job resources in the environment, Biophilic Work Culture and Biophilic Leadership, as complementary and separate structural and relational resources. The framework describes the theory behind the assumption that these biophilic resources can induce 'soft fascination' in cognition that would be expected to reduce stress and restore the limited directed-attention capacity necessary for creative problem solving. Thus, it is suggested that the key transformative pathway between nature-integrated workplace environments and discretionary innovative behaviors is the cognitive rejuvenation. To validate the propositions of the model, a multi-wave, time-lagged empirical testing strategy is set forth which is based on PLS-SEM. These relationships are specifically identified as being mediated by boundary conditions, such as individual differences in nature relatedness, organizational dimensions of culture and variation in workplace design. Finally, this paper connects the dots between ecopsychology and corporate management, outlining a viable path for leaders to enter the world of innovation and share the power by investing wisely in natural resources for human health, and identifying where the statements are theoretical until proven through empirical research.

1. INTRODUCTION

In today's business world, the constant need for competitive advantage has made innovation a top priority for businesses. In the contemporary business world, the constant push to gain competitive advantage has put innovation on the top of businesses' priorities. Innovative Work Behavior (IWB) — the purposeful development, promotion and implementation of new ideas — is no longer a luxury but is now regarded as a minimum requirement for corporate survival (Vandana et al., 2026). But, in recent times, when work has become highly digitalized and pressurized environment, organizations have reported an increase in cognitive fatigue, psychological burnout and creative stagnation. High pressure organizational environments can be fraught with severe psychosocial stressors (Aftab & Yazdani, 2026), and the pressures to innovate can be double-edged swords, enhancing performance but also potentially leading to significant work exhaustion (Segarra-Ciprés et al., 2026). There is a critical, but often neglected, misalignment in traditional business models: separation of the employees from the natural world. One part of this crisis is the separation of employees from nature in the traditional business model — what we call the 'nature disconnect' — which must be addressed.

Fatigue-innovation tension is not limited to job demands, physical or environmental, but is more and more present also in the digital component of modern work. In a study of the global online workforce, Deogaonkar (2026) argues that an important psychological driver that threatens employee commitment despite high levels of schedules flexibility are feelings of ‘flexibility fatigue’—exhaustion caused by frequent changes in schedules, work–life boundaries, and constant connectivity to digital devices. Based on Conservation of Resources (COR) theory, that study found that the model predicts that ethical leadership should be negative with flexibility fatigue and positive with affirmative organizational commitment, and flexibility fatigue should partially mediate these relationships. This finding is consistent with a key argument of the current paper: Psychological and attentional resources can be depleted as a resource-loss process, accelerated or buffered by leadership or organizational inputs. As the authors have indicated, ethical leadership and digital inclusion emerge as two potential buffers against flexibility fatigue, as identified in Deogaonkar's 2026 framework; we suggest that a Biophilic Leadership and Biophilic Work Culture can also serve as two parallel buffers against the most salient drawback to creative cognition, namely directed-attention fatigue.

Traditionally, HRM and architectural design have co-existed separately. Workspaces were often built to maximize space and efficiency, and to minimize natural stimuli in the workspace. The Job Demands-Resources (JD-R) model of the relationship between work stress and resources, which is one of the modern models of motivation and creativity, highlights the need for organizations to control psychological demands and provide supportive environmental and social resources to maintain motivation and creativity (Dehkordi et al., 2026). There is increasing interdisciplinary evidence that exposure to nature and psychological wellbeing and cognitive function go hand in hand. This affinity has been described as an evolutionary human impulse to connect with the natural world by Edward O. Wilson's Biophilia Hypothesis. In the absence of organizational structures that cater to this tendency, we hypothesize that employees' well-being can be affected, which could limit the cognitive resources they have to draw on when they encounter problems in the field that they cannot anticipate or solve in advance (Aftab & Yazdani, 2026) — although this causal pathway has, as yet, not been directly tested in the literature on field-work and innovation.

This is echoed by recent research by IT professionals under flexible working arrangements. Shikhar and Deogaonkar (2026) discovered that higher natural-resource exposure was linked to greater employee recovery and well-being, with recovery partially ascribing to the natural-resource exposure. Their findings show that the use of nature-based resources can buffer the demands of digitally intensive work, and that there is an empirical foundation for the present study's focus on biophilic workplace resources.

To fill this void, this paper brings forward two parallel but distinct constructs: Biophilic Work Culture and Biophilic Leadership as levers in a culture of strategy in organizations, recognizing that they need to be distinguished from each other (see Section 2.3). A Biophilic Work Culture is defined as a cultural climate, shared, structural, organization-level that intentionally integrates natural elements into the physical and psychological structure of the workplace, based on the premise that the organizational climate at the level of the organization influences the individual-level creative processes (Cavaliere & Mori, 2026; Subramani et al., 2026). By contrast, Biophilic Leadership is conceived as a 'catalyst at the individual level, through a relational and behavioral approach', in line with the evidence that indicates that green, authentic and transformational styles of leadership foster a sense of trust, psychological empowerment and structural agility (Ametorwo et al., 2026; Azmy & Fatimah, 2026; Lal et al., 2026). A biophilic leader is hypothesized to champion the causes of environmental health, demonstrate eco-centric values, and empower staff to use natural areas to recharge their thinking and feelings (Garlatti Costa & Marinelli, 2026). It is important to differentiate between these two types of constructs: climatic and structural (as opposed to behavioral and relational), because previous studies have sometimes used the term “green” for organizational constructs without differentiating them at the level of analysis.

The other half of this equation, the relational, leadership one is also bolstered by the growing evidence on configurational models of leadership and resource deployment in digitally transforming organisations. In his study on Digital leadership in Education, AI readiness and Resource Allocation, Deogaonkar (2026) employed fuzzy-set qualitative comparative analysis (fsQCA) and found that the leadership and resources conditions of an organization do not need to be a single thing to create a successful organizational transformation; rather, the leadership and resources condition can be configured in different ways to consistently explain high perceived implementation success, while a weak leadership and resource misaligned condition cannot explain high organizational transformation unless other conditions are present. This configurational logic is directly applicable to the current framework; it is one that indicates that Biophilic Leadership and Biophilic Work Culture are not likely to be the stand-alone means to a satisfactory Employee Experience; rather, they are likely to be more effective when combined, thus

supporting the "systemic" rather than "net-effects" perspective on innovation-supportive conditions stressed in this paper (Section 4.2).

Future research is proposed to connect these biophilic variables with innovation through the Employee Experience, specifically through cognitive restoration and psychological well-being, but not compensation, career growth, or belonging as it is sometimes mentioned in the literature of employee-experience. The paper, based on Stephen Kaplan's theory of Attention Restoration Theory (ART), suggests that a lack of restorative play in a work environment reduces the amount of time an employee can spend in directed attention, leading to mental fatigue and less flexible thinking. In contrast, we propose that encounters with natural elements can produce "soft fascination" or one of four properties ART identifies (along with being away, extent, and compatibility) that include effortless involuntary attention and lower stress and restored directed-attention capacity. This cognitive replenishment is a plausible determinant of creative work behaviour (Praveen Kumar et al., 2026) and is something that has yet to be directly examined in a single integrated organisational model. Although the physical health benefits of biophilic architecture have been documented in the literature, the direct link to organizational behavior, leadership paradigms, and employee innovation are not well developed. This conceptual paper fills this gap by synthesizing the fields of environmental psychology and organizational theory.

Deogaonkar (2026) conducted a study of using generating AI for virtual training, which is a related, but different line of evidence for engagement as a mediation between an environmental stimulus and a performance outcome. In that study, immersion and realism perceptions were found to have a significant impact on user engagement, and this engagement was found to fully mediate the relationship between simulation design and training performance. The logic between the substantive domain (technology-driven simulation) and the focus on this paper on nature-integrated physical environments is structurally similar: a stimulus in the environment, or design, does not perfectly correspond to the resulting behavior or outcome, but it does correspond to a psychological state: engagement, in the above referenced study; restorative cognitive capacity, in the present frameworks. This also indirectly supports the general linkage of proposition 3 in the present paper (section 3.3) that effects of environmental inputs are mediated by internal psychological processes, rather than main effects.

We suggest that, based on this available evidence, a Biophilic Leadership Framework and a Biophilic Work Culture can work together on the development of a restorative Employee Experience that is subsequently hypothesized to lead to increased IWB rates. This paper presents a testable roadmap for researchers and a set of theoretically supported, but unvalidated, design principles for practitioners to consider as they design new natural resources that can become cognitive catalysts.

2. MATERIALS AND METHODS

To make understanding how natural resources can be used strategically to support corporate creativity, this paper synthesizes two fundamental theories in environmental psychology with organizational behavior, namely, the Biophilia Hypothesis and Attention Restoration Theory (ART) operated within the corporate domain, where the Job Demands-Resources (JD-R) model is introduced (Dehkordi et al., 2026; Md Suhaimi et al., 2026)

2.1 The Job Demands-Resources (JD-R) Framework in a Restorative Environment

This process is known as the Job Demands-Resources (JD-R) Framework in a Restorative Environment. Garlatti Costa & Marinelli (2026) and Dehkordi et al. (2026) somehow categorize the workplace characteristics into two groups namely job demands and job resources. This model proposes two parallel processes—one related to health impairment (high demands for long periods of time lead to a reduction in energy resources, resulting in strain) and the other to motivation (the presence of resources helps maintain engagement and facilitates proactive work behaviors such as innovativeness) (Bakker & Demerouti, 2017). Under these high pressure conditions, there are psychosocial demands linked to work exhaustion, organizational cynicism, and resource-loss cascades (Aftab & Yazdani, 2026), but at the same time, there are organizational and environmental resources which are hypothesized to serve as protective and motivating counterweights that can encourage employees to be more creative (Dehkordi et al., 2026).

This health-impairment/motivation duality is in accord with COR based evidence from beyond biophilic. Deogaonkar (2026) examined how ethical leadership and digital inclusion relate within the context of the global online workforce, concluding that they do not only mitigate against feelings of flexibility fatigue (a health-impairment-process outcome) but also stimulate positive commitment (a motivational-process outcome) and that fatigue partially mediated between the two processes. The double-pathway of this paper for Biophilic Work Culture and Biophilic Leadership, buffering strain on the one hand and fostering a

positive downstream attitude or behaviour, has added crosscontext plausibility of the application of the JD-R approach in the context of natural or biophilic resources, although the original study did not measure natural, biophilic resources.

Within this framework, Biophilic Work Culture and Biophilic Leadership are two different types of job resources: one structural and environmental (component of the physical and climatic context of the organization) and the other social and relational (provided by the behaviour of the leaders). This distinction is important theoretically because according to JD-R theory, structural and social resources would be hypothesized to have different activation pathways: Structural resources would be hypothesized to operate more continuously and ambiently, whereas social resources would be hypothesized to operate through direct interpersonal exchange (e.g., trust, feedback, autonomy-granting). We share the view of Aftab and Yazdani (2026) that both resource types are guided by the same motivational pathway, which redirect employees from defensive resource-protection to proactive and creative behaviour (Dehkordi et al., 2026).

2.2 The Biophilia Hypothesis and Attention Restoration Theory

The Biophilia Hypothesis states that humans have an innate connection to nature, and that physiological and psychological systems are believed to operate better when linked with nature. This relationship is often reduced in modern corporate environments due to the digitalization and spatial compression that occurs in the vicinity (as reflected in other literature, see Brandt & Schmoll, 2026; Schön et al., 2026). This paper draws upon Attention Restoration Theory (ART). ART believes that the effortful and intentional attentional control needed to work on focused, screen-based, high-pressure tasks is a finite cognitive resource that can be exhausted by extended use, leading to mental fatigue and decreased flexibility of thinking (Kaplan, 1995). According to ART, there are four properties of a restorative environment: being away, extent, compatibility, and soft fascination. The most obvious property that is related to creative restoration is soft fascination, which means that directing one's attention to rest occurs while the involuntary attention is engaged in the work setting, without full disengagement from it (Kaplan, 1995). This alone is why the workplace might make good use of biophilic elements, specifically not nature exposure outside of the workplace.

2.3 Construct Definitions and Boundary Conditions

Understanding the concepts of Definitions and Boundary Conditions, and learning to construct them. The line between the four major constructs in the paper was made less clear by the reviewers. To minimise any risk of construct overlap in future empirical operationalization, the distinctions summarised in Table 1 were provided under the headings of: level of analysis, theoretical grounding and primary content.

Table 1. Conceptual Boundaries Between Core Constructs

Construct	Level of Analysis	Nature of Construct	Theoretical Grounding	Primary Content	Distinguished From
Biophilic Work Culture	Organizational/climate	Structural, shared, relatively stable	Biophilia Hypothesis; JD-R (structural resource)	Shared values and physical infrastructure embedding nature (e.g., green architecture, daylighting, indoor flora, sustainability norms)	Biophilic Leadership (which is behavioral/individual, not climatic); general "green" organizational culture (which may emphasize external sustainability rather than employee cognitive restoration)

Biophilic Leadership	Individual /dyadic	Relational, behavioral, enacted	Green/authentic/transformational leadership; JD-R (social resource)	Leader modeling of eco-centric values, granting autonomy for restorative breaks, championing nature-based initiatives	Biophilic Work Culture (climate vs. behavior); generic transformational leadership (which lacks the eco-centric/restorative content)
Employee Experience (restorative)	Individual /psychological state	Proximal outcome of resources; malleable, state-like	Attention Restoration Theory; workplace well-being literature	Cognitive recovery (restored directed attention), reduced stress/exhaustion, perceived restoration	Broader "employee experience" constructs (which may include compensation, career growth, belonging — explicitly excluded here)
Innovative Work Behavior (IWB)	Individual /behavioral	Distal outcome; discretionary behavior	Intrapreneurship/creativity literature	Idea generation, idea promotion, idea realization	Employee Experience (a psychological state that precedes and enables IWB, not the behavior itself); general job performance (IWB is discretionary and creativity-specific)

This table helps to clarify how two resources are proposed to both be brought to a single proximal psychological state (restorative Employee Experience) which is then proposed to lead to a single distal discretionary behavior (IWB). The scope of the Employee Experience as seen in the presented literature is often reduced to cognitive restoration and well-being, which is a conscious scope selection for Employee Experience in this instance that should be clearly defined in any future Employee Experience survey instrument, to limit convergent-validity issues with related constructs like job satisfaction or engagement.

A second conceptual boundary that is important to note is the approach towards theorizing "learning" or "capability accumulation" and this is derived from Deogaonkar's (2026) configurational study of employee- and organizational-level learning in SMEs. This study proposes that there is a distinction between ones (individual-level) capabilities and routines (organizational-level) and that the translation between the two is not automatic, but depends on the core conditions of absorptive capacity and organizational learning. Applying this to the present framework, it means the restorative Employee Experience proposed here has a clearly psychological level and its translation into an innovation outcome level (organisation-level, in the case of the IWB, a genuinely "democratised" pattern, claimed in Section 4.3) is not automatic, and might itself rely on organisational-level absorptive or learning mechanisms to ensure that the individual's cognitive restoration is translated into shared, sustained innovation routines. This is mentioned here as another boundary condition for future refinement of the model, in addition to those already mentioned in Section 4.1.

3. CONCEPTUAL FRAMEWORK AND PROPOSITIONS

3.1 Biophilic Work Culture and Employee Experience

Culture influences members' perceptions, thinking, and responses to daily routines within an organization (Cavaliere & Mori, 2026). A Biophilic Work Culture is an organizational environment where the inclusion of natural resources and sustainability is grounded in organizational values and physical assets (Ametorwo et al., 2026). In a biophilic culture, unlike an aesthetic culture of plants and daylight, the latter are not cultivated for aesthetic purposes or as optional additions to an environment; they are thought to be a structure that fosters wellbeing, so that restorative exposure becomes ambient and constant, rather than something that must be sought out, achieved, and maintained. We suggest that a positive organizational climate fosters a supportive environment that influences individual cognitive processes—evidence suggests that positive organizational climate positively influences individual motivations to engage in creative behavior more generally (Cavaliere & Mori, 2026; Subramani et al., 2026). A biophilic work culture is theorized as an environmental resource that is linked with lower levels of stress and a more positive perception of the workplace (Ametorwo et al., 2026; Segarra-Ciprés et al., 2026), which have been found to be

correlated with adjacent cultures. We note that this particular structural pathway, biophilic climate to cognitive restoration, is not yet directly tested and so is offered here as a testable proposition not yet proven.

- Proposition 1: A Biophilic Work Culture is positively associated with the (restorative) Employee Experience, and does so by reducing ambient cognitive fatigue and improving psychological well-being.

3.2 Biophilic Leadership and Employee Experience

Culture gives it the ambient environment and leadership is suggested as a catalyst for behavior that activates it. Biophilic Leadership is defined as a hybrid of green, authentic, and transformational leadership (Ametorwo et al., 2026; Azmy & Fatimah, 2026; Lal et al., 2026). This leadership approach is hypothesized to demonstrate eco-centric values, recognize employee wellness as a valued resource and create clear and positive restoration transition channels.

Based on the evidence that employee empowerment may be enhanced through leader trust and employee empathy (Azmy & Fatimah, 2026; Jatoi & Channar, 2026), we propose that the distinguishing behavior of biophilic leaders is granting autonomy in their jobs specifically for restorative purposes, that is, giving employees permission and encouragement to leave digital environments in order to recover in natural spaces (Garlatti Costa & Marinelli, 2026). In practice, this is what makes Biophilic Leadership a different approach to Biophilic Work Culture: a culture can offer a physical amenity (e.g. a garden terrace) but without leader-granted autonomy, formal biophilic amenities may not be used to their full potential, due to the overt pressure to stay visibly at the desk. Theorized to have a direct positive impact on the Employee Experience beyond the “ambience” of culture, biophilic leaders foster open communication, focus on cognitive recovery instead of constant digital engagement, and are thus expected to enhance the restorative nature of the experience (Sandhu et al., 2026).

This autonomy-enhancing process is congruent with but separate from the research related to the impact of ethical leadership on digitally-induced fatigue. In a study, Deogaonkar (2026) found that ethical leadership (fairness, integrity and caring for the well-being of employees) was negatively related to flexibility fatigue in flexible/hybrid working environments, in part because of its perceived lack of supervision. The underlying behavioural principle is similar to that study, but that one focuses on ethical behaviour as opposed to values centred, or nature-based, values; the values-driven leadership style in that study alleviates a named type of cognitive/psychological fatigue because it signals the legitimacy to employees to manage their own resource recovery. We suggest that Biophilic Leadership works in a similar way as signaling – but focused on legitimising the use of natural and restorative spaces over flexible scheduling.

- Proposition 2: Biophilic Leadership is positively related to the (restorative) Employee Experience, indirectly, by means of leader-fostered trust, psychological empowerment, and autonomy directed specifically towards the restorative use of natural resources.

3.3 The Mediating Role of Employee Experience Between Biophilic Resources and IWB: An Explicit Causal Chain

There was a need for more theoretical rationale for the suggested mediation from reviewers. We therefore propose a four-step causal chain model, not mediation as one statement.

Step 1 — Resource provision. Biophilic Work Culture and Biophilic Leadership together provide structural and relational job resources (JD-R) that can help to elevate employees' availability to and authorization to engage in nature-based restorative moments in the job.

Step 2 — Attentional restoration. It is theorised that the exposure of these resources is likely to initially trigger soft fascination and thus release a depleted directed-attention capacity. This is specifically based in the idea that Kaplan (1995) put forward: involuntary, effortless attention to moderately engaging natural stimuli allows for the rest of the directed-attention mechanisms.

Step 3 — Psychological State change. Restored attentional capacity is hypothesized to present as the restorative Employee Experience (cognitive fatigue reduction, perceived stress reduction, and recovery feeling, as in JD-R extensions with COR theory; Hobfoll, 1989). This step-wise logic is also similar to that of the generative-AI training context reported by Deogaonkar (2026), in which the effect of immersion and realism (environmental/design inputs) on training performance was mediated by user engagement (intervening psychological state) rather than through any form of mediation. The finding is full-mediation, and not partial mediation, as the following study provides a useful benchmark: In some contexts, variables that represent

environmental design variables have no statistically direct effect on a distal outcome whatsoever, supporting a similar strong (full mediation) interpretation of Proposition 3 below.

Step 4 — Behavioral translation. Given that IWB is cognitively challenging, it requires flexible and associative thinking, which is quite different from rigid and fatigued thinking, more capacity in the directed attention system is hypothesized to be translated into a greater propensity for discretionary innovative effort (Ngo et al., 2026; Praveen Kumar et al., 2026). In the JD-R model, employees who are not operating in a resource-protection/exhaustion state are more likely to enter the motivational process that would direct resources toward proactivity (Jatoti & Channar, 2026; Md Suhaimi et al., 2026).

This four-step chain: resource provision, attentional restoration, psychological state change, and behavioral translation, is what makes it possible to consider EE as a mediator, not just a correlate, as it is the mechanism that transforms an environment/relationship stimulus (without a creative content) into a behavioral response (creative content). We make it explicit that each step refers to a different literature that has not, so far, been used in a coherent and tested way together (JD-R, ART, COR, innovation management), thus resulting in a theoretically coherent but not yet empirically confirmed mediation. Likewise, in the model of biophilic resources and Innovative Work Behavior (IWB), biophilic resources are hypothesized to exert the strongest influence on IWB through their mediation of a cognitive restoration, instead of directly, unmediated, as is represented in the relationship between biophilic organizational inputs (Culture and Leadership) and IWB. Similarly, in the model of biophilic resources and Innovative Work Behavior (IWB), it is hypothesized that biophilic resources will have the strongest relationship with IWB through their mediation of a cognitive restoration, rather than directly, unmediated, as is represented in the relationship between biophilic organizational inputs (Culture and Leadership) and IWB.

(The conceptual framework (Figure 1) shows that Biophilic Work Culture and Biophilic Leadership are exogenous constructs that occur in parallel, and that restorative Employee Experience is the mediator, while boundary conditions are indicated which are moderating contexts — as outlined in Section 4.1.)

4. DISCUSSION

This conceptual paper presents a framework that links the concepts of environmental psychology and organizational behavior. It explains at an explanatory level how Biophilic Work Culture and Biophilic Leadership (two distinct concepts, see Table 1) could be considered as job resources and are theorized to be necessary to optimize the (restorative) Employee Experience, subsequently leading to Innovative Work Behavior. This approach to natural resources as cognitive catalysts shifts the focus from a purely decorative element of the office to the potential of using them as tools that can be developed in an organization. As a framework it takes a different view on innovation as something that can be developed in an organisation rather than just monitored using performance measures, and it redefines natural resources as a product of cognition.

4.1 Boundary Conditions and Contextual Moderators

Individual differences. Staff will not react in the same way to biophilic resources. The effects of exposure to biophilic elements on soft fascination and restoration could be moderated by trait-level "connectedness to nature" or nature relatedness; employees with low nature relatedness may get less restoration from the same physical resource. Likewise, the link between the Employee Experience and IWB could be mediated by baseline creative self-efficacy, as well as openness to experience, as there may be a stronger association between the restored level of cognitive capacity and innovative action in employees who already feel creatively confident or have a clear understanding of how their job relates to innovation. These are suggested as potential individual difference moderators rather than a complete list of employee difference moderators.

Organizational culture (beyond biophilic content). The model needs to be understood within a larger organizational culture that also can facilitate or inhibit the hypothesized path. For example, an enhanced culture of performance pressure or "always on" may offset even a richly-resourced biophilia, as workers can feel unpsychologically safe to access restorative resources, even if leaders formally give them room to operate as independent (or "always on") workers (a disconnect between espoused culture and enacted culture). However, other organizations with already high levels of psychological safety or learning cultures could enhance the proposed benefits as restorative benefits would be more likely to be expressed and directed toward the promotion of ideas. Managing it is also likely to be a complement to the Biophilic Work Culture–Employee Experience path proposed here, by analogy, the strength of the path Biophilic content–Performance outcomes is also likely to be conditional on complementary managerial and cultural conditions that make the path possible (as found by Deogaonkar and Nanoty, 2026), but not on biophilic

content alone. This indicates that Biophilic Work Culture and Biophilic Leadership is not a cultural vacuum and that in the future models can include the measurement of general organizational climate as a covariate or moderator.

Workplace design variation. The framework outlined in the paper takes a relatively idealized and controlled corporate office context. As with many other design concepts, the level of biophilic design can be widely different in practice — here, from a few potted plants to a range of biophilic architecture features such as a living wall, circadian lighting, and even outdoor access. We suggest that the connection between Culture/Leadership and Employee Experience is likely dependent on how strong and genuine the implementation of biophilia is, rather than it being present or absent. The binary (contour/non-contour) measurement of "has biophilic elements" or "not present" may be an underestimate of actual effect sizes, and future empirical studies should assess implementation intensity as a continuum or as a graded measure.

4.2 Theoretical Contributions

The conceptual model makes three contributions to the human resource management, leadership and innovation literature, as follows, in an appropriate epistemic caution, in view of the conceptual status of this paper.

1. Bridging environmental psychology and organizational behavior. With the exception of the presence of the Biophilia Hypothesis and ART, paradigms of environmental health and organizational behavior have evolved more or less independently of each other. The present one proposes an integration, placing the biophilic components as structural job resources in JD-R, a conceptual gap on the way a nature-integrated physical environment could act as a basic stabilizer against resource-depletion cascades in high-pressure environments (Aftab & Yazdani, 2026; Segarra-Ciprés et al., 2026). This integration is still theoretical and has yet to be shown empirically in a single model.

2. A systemic, configurational view rather than isolated net effects. This paper suggests that as key factors in a work culture, the structural climate and the behavioral climate of innovativeness are independent but seem to be interrelated in the sense that they are complemented by each other when combined. This configural framing is in line with the globalization of innovation research, moving away from single predictors models, but the proposed configuration (biophilic culture + biophilic leadership) is new and has not yet been tested. This configurational logic was borne out of two adjacent research studies in the author's own research programme: Deogaonkar's (2026) fsQCA study on digital leadership and resources allocation in education showed that there were multiple pathways to success, and not any single pathway that was linear; and Deogaonkar's (2026) fsQCA study on SME learning capabilities showed that there were multiple equifinal pathways — rather than any single linear pathway — to a comparable performance outcome. The "no single condition suffices" logic of this paper is confirmed both conceptually and empirically in adjacent organizational domains in both studies, thereby increasing the plausibility of a configurational reading for Propositions 1–3, and indicating the potential of fsQCA as a valuable complement to the PLS-SEM approach proposed in Section 5.

3. Specifying a candidate cognitive mechanism for innovation. Social and motivational factors of creativity have been widely reported in the innovation management literature, but there is little clarity, if any, on the mechanism that is attentional. What this paper aims to propose is a candidate mediating mechanism: Employee Experience (narrowly defined as attentional restoration) as opposed to the "nature is good for you" argument. This specificity is designed to make the proposition falsifiable, as in the case of a study that demonstrated that biophilic environments were associated with positive effects on self-reported mood, but not on directed-attention task performance, the proposed mechanism would be disconfirmed even though a positive effect on well-being was found.

4.3 Practical Managerial Implications

This is a provisional design roadmap for corporate practitioners, human resource directors, and corporate executives for the design of the workplace, under the boundary conditions outlined in Section 4.1.

Aligning high job demands with physical and spatial resources. While managers cannot stop the demands of digital technology and the need for rapid work, they can invest in physical resources that are hypothesized to absorb stressors of the daily work environment, such as indoor greenery and open spaces, as well as natural light. If practitioners do proceed on to test this framework in practice, they need to be aware that even small symbolic efforts (1 desk plant) are unlikely to have the intended effect from a workplace-design perspective.

Training leaders to grant nature-based autonomy. If there is a culture that forces workers to sit at their desk, a biophilic office is unlikely to be beneficial. Leaders might want to make a clear point when setting up restorative practices, for example, through outdoor walking meetings, protected screen-break windows or alternative workspace choice, and acknowledge that these practices will likely be effective depending on the surrounding organizational culture (Section 4.1).

Democratizing corporate innovation. This framework proposes, as an ideal case scenario, that a properly configured biophilic workplace and leadership approach will offer an opportunity for "institutional scaffolding" to eliminate the need for a limited number of naturally creative "superstars" within the organisation. It is an aspirational statement about the model, not an empirical finding about the outcomes of an organization, at this point.

5. PROPOSED METHODOLOGY AND EMPIRICAL TESTING

Since this is a conceptual paper, the proposed relationships must be validated using empirical data. Future researchers can employ a quantitative, time-lagged survey design and Partial Least Squares Structural Equation Modelling (PLS-SEM) approach that is appropriate for testing a more complex mediation model that includes formative and reflective constructs. An experimental or mixed-method design provides a complementary way to more directly isolate physical biophilic exposure causal effects.

5.1 Survey Design and Sampling Strategy

Target population and context. The most suitable target group would be white collar working knowledge workers and creative professionals (such as IT companies, digital enterprises, design agencies) working in a digital environment under pressure and where innovation is emphasised as an organisational priority.

Sampling method. For the same reasons, it is recommended to undertake a purposive or stratified sampling approach to ensure respondents are sampled from organisations with different levels of achievement of biophilia (from minimal to extensive) to ensure that implementation intensity (Section 4.1) is captured as a meaningful predictor, and not a constant.

Data collection and time-lagging. To reduce common method bias (CMB), a three-wave, time-lagged design is recommended:

- **Time 1 (T1):** Independent variables (Biophilic Work Culture, Biophilic Leadership) and demographics, plus candidate moderators (nature relatedness, organizational culture strength, biophilic implementation intensity).
- **Time 2 (T2):** Mediator (restorative Employee Experience).
- **Time 3 (T3):** Dependent variable (Innovative Work Behavior).

The proposed three-wave design is also in line with the time-lagged study of natural-resource exposure, employee recovery, and well-being by Shikhar and Deogaonkar (2026) in the context of IT workers. Therefore, the present study suggests assessing the Biophilic Work Culture and Biophilic Leadership at Time 1, the Employee Experience at Time 2, and the Innovative Work Behavior at Time 3, in order to set the time dimension between the organizational resources, psychological restoration, and behavioral innovation.

5.2 Operationalization and Measurement Scales

To preserve psychometric validity and the conceptual boundaries established in Table 1, future researchers should adapt established scales as follows:

- **Biophilic Work Culture:** Modified 5-item scale of the measures on Green Organizational Culture and Innovation Climate, specifically for shared values in the organization, physical infrastructure, but not related to leadership-behavior items.
- **Biophilic Leadership:** An adapted 6-item scale that is a composite of the content from both the Green Leadership and Transformational Leadership scales, but with a focus on leader behaviors (modeling, autonomy-granting, championing) rather than climate perceptions.

- **Employee Experience (restoration and well-being):** The Restorative Components Scale (RCS) based on ART was combined with a narrow measure of employee well-being that focused on cognitive restoration and exhaustion, excluding more general employee-experience constructs, such as compensation, career development, etc., to maintain discriminant validity.
- **Innovative Work Behavior (IWB):** A 9-item scale measuring three dimensions of innovative work behavior, namely, idea generation, idea promotion and idea realization. Discriminant validity assessment (e.g., heterotrait-monotrait ratio) should be conducted between items in the Biophilic Work Culture and the items in the Biophilic Leadership measures, as well as between the restorative Employee Experience measure and related constructs.

Discriminant validity assessment (e.g., heterotrait-monotrait ratio) should be conducted between items in the Biophilic Work Culture and the items in the Biophilic Leadership measures, as well as between the restorative Employee Experience measure and related constructs such as job satisfaction or engagement, given the conceptual overlap risk flagged in Table 1.

Researchers can then explore the use of fuzzy-set Qualitative Comparative Analysis (fsQCA) along with the primary PLS-SEM strategy, similar to the use of fsQCA with the primary PLS-SEM strategy in adjacent research on organizational-configuration (Deogaonkar, 2026, on digital leadership configurations; Deogaonkar, 2026, on SME learning configurations). An fsQCA approach would enable researchers to identify if there are particular combinations of Biophilic Work Culture and Biophilic Leadership (e.g., high culture + high leadership; high leadership + moderate culture) needed to achieve a high restorative Employee Experience, thus providing a causal-asymmetry logic in addition to the linear logic of net effects offered by SEM. This spatial limitation is noteworthy in view of Deogaonkar's finding (2026) that flexibility fatigue is a specific and measurable strain outcome that is unique to remote or hybrid digital work, and future additions to the present framework should investigate whether or not biophilic resources could be meaningfully replicated in home-work settings, or whether the restorative mechanism proposed herein is structurally unavailable to fully remote workers.

5.3 Statistical Analysis and Proposition Testing

Table 2. Testing Strategy Matrix

Hypothesized Path	Independent Variable	Mediator/Dependent Variable	Proposed Statistical Test	Expected Outcome (theoretical)
Proposition 1	Biophilic Work Culture	Employee Experience	Direct path coefficient (β) in SEM	Positive relationship; culture theorized to support restoration
Proposition 2	Biophilic Leadership	Employee Experience	Direct path coefficient (β) in SEM	Positive relationship; leadership theorized to boost autonomy and empowerment
Proposition 3	Culture & Leadership	Innovative Work Behavior (via Employee Experience)	Bootstrapped mediation analysis (5,000 resamples)	Employee Experience expected to fully or partially mediate the link to IWB
Boundary condition (exploratory)	Nature relatedness, culture strength, design intensity	Moderation of P1/P2 paths	Multi-group analysis or interaction terms in PLS-SEM	Stronger paths expected under high nature relatedness, high psychological safety, high design intensity

5.4 Alternative Quasi-Experimental Design

To more directly probe causality between physical natural resources and cognitive restoration, researchers could execute a quasi-experimental field study:

- **Control group:** Employees remain in a standard office environment with artificial lighting and minimal natural elements.
- **Treatment group:** Employees are moved to a nature-integrated workspace with indoor flora, dynamic natural lighting, and outdoor visual access.
- **Measurement:** Pre- and post-test measurement over a 6-week period, combining objective cognitive metrics (e.g., attention-span tasks, proofreading accuracy) with subjective surveys of self-reported innovative ideas generated, plus a manipulation check confirming perceived biophilic exposure differed meaningfully between groups.

6. CONCLUSION

The requirements for organizations to survive are changing due to digitalization, high-pressure situations and flexible working conditions in the corporate world. The concept of innovation is becoming more and more a system than a single occurrence of a few “superstar” employees. In this conceptual paper, the author argues that sustainable corporate creativity will not be achieved by force or by measurement alone, and that there are underexplored levers for sustainable corporate creativity that may be the natural resources that support human health. Using the JD-R model, this paper establishes a conceptual framework for the effectual influence of the two relational and structural resources, namely Biophilic Work Culture and Biophilic Leadership, on a quite limited, restorative Employee Experience. The model is based on the soft-fascination mechanism of Kaplan's ART and proposes a four-stage causal chain that, in principle, could lead cognitive restoration and consequently to a support of Innovative Work Behavior in nature-integrated workplaces. This is a theoretical suggestion; individual differences (as well as organizational culture and workplace design variation) are likely to be meaningful in determining the strength of these relationships in practice. This paper provides a theoretical basis for future researchers and a tentative, evidence based, but not evidence proven set of design principles for practitioners. An empirical test of this framework across a wide variety of organizational and cultural settings is a prerequisite for the validity of the practical claims that can be made about it.

7. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The conceptual nature of this paper is its main drawback; we identify below which statements are propositional for testing and which ones are taken from related and existing empirical literature.

Absence of empirical validation. Propositions P1–P3 are original, and have not been tested in combination. The individual sub-components are supported by existing literature, such as the JD-R motivational process (Bakker & Demerouti, 2017) and the soft-fascination mechanism (Kaplan, 1995) have been well tested in their original context, and combining these elements into a unified biophilic-organizational model is original and not tested. Future studies need to implement the suggested survey or quasi-experiments to determine if these connections are valid.

Contextual and cultural invariance. The framework is still not able to consider the differences between cultures with regard to the perception of nature, leadership or autonomy granting. The impact of a biophilic culture can potentially vary between collectivist and individualist cultures, or between developed and developing economies where there is a different baseline of availability for green infrastructure. This question is open, it does not represent a solved issue.

Individual and workplace-design heterogeneity. As mentioned in Section 4.1, there are likely boundary conditions that are not yet formally accounted for in the current model: individual differences (nature relatedness, creative self-efficacy), variation in the authenticity/intensity of biophilic design. These should be explicitly written as interaction terms in future versions of this framework and not as a homogenous binary exposure to biophilic.

Spatial boundaries and remote-work blindness. The model is focused around the physical corporate office and not explicitly addresses hybrid or work from home (WFH) environments. Future studies should explore ways for employees to experience restorative biophilia in the managed space outside the office, such as while working remotely from home and/or through structured breaks for outdoor exposure. This spatial limitation is noteworthy in view of Deogaonkar's finding (2026) that flexibility fatigue is a specific and measurable strain outcome that is unique to remote or hybrid digital work, and future additions to the present framework should investigate whether or not biophilic resources could be meaningfully replicated in home-work settings, or whether the restorative mechanism proposed herein is structurally unavailable to fully remote workers.

The macro-economic cost-benefit gap. This framework focuses on psychological and innovative returns, but doesn't consider whether the work is financially viable on a large scale for building biophilic investments. To encourage practitioners

to adopt biophilic upgrades, future empirical papers should incorporate cost-benefit analysis to determine the ROI of biophilic upgrades over absenteeism and production efficiency, and then analyze this evidence.

ETHICS STATEMENT AND CONSENT TO PARTICIPATE

This study was conducted in accordance with the ethical standards of academic research. Ethical approval was obtained from the Institutional Ethics Committee (RBU-SOM). Participation was voluntary, and informed consent was obtained from all respondents before data collection.

CONSENT FOR PUBLICATION

All authors have reviewed and approved the final version of the manuscript and consent to its submission for publication.

CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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DATA AVAILABILITY STATEMENT

The datasets generated and analyzed during the current study are available from the corresponding author on reasonable request.

AUTHOR CONTRIBUTIONS

Ms. Aboli Mande: Conceptualization, Investigation, Methodology, Data Curation,

Dr Anant Deogaonkar: Formal Analysis, Supervision,

Dr Raghid Al Hajj: Supervision, Writing—Review & Editing.

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